Amendment After Final Rejection Serial No. 09/912,132

US010341

IN THE CLAIMS:

Kindly replace the claims of record with the following full set of claims:

1. (Currently amended) A method for decoding a video bitstream at a first resolution, comprising the steps of:

producing residual error frames at a second lower resolution by performing an inverse discrete transformation on a pixel block of a known size and sampling the signal at a predetermined rate to obtain a second resolution lower than said first resolution;

producing motion compensated frames at the second lower resolution; combing the residual error frames with the motion compensated frames to produce video frames; and

up-scaling the video frames to the first resolution, wherein the up-scaling is performed by a technique of repeating pixel values.

- 2. (Original) The method of claim 1, wherein the producing residual error frames includes performing an 8X8 inverse discrete transform to produce pixel values.
- 3. (Cancelled)
- 4. (Original) The method of claim 1, wherein the producing residual error frames includes performing a 4X4 inverse discrete transform.
- 5. (Original) The method of claim 1, wherein the producing motion compensated frames includes scaling down motion vectors by a predetermined factor to produce scaled motion vectors.
- 6. (Original) The method of claim 1, wherein motion compensation is performed based on the scaled motion vectors.
- 7. (Cancelled)

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- 8. (Original) The method of claim 1, wherein the up-scaling is performed in a horizontal direction.
- 9. (Original) The method of claim 1, wherein the up-scaling is performed in a same direction as down scaling in the residual error frames.
- 10. (Currently amended) A readable memory medium for storing code for decoding a video bitstream at a first resolution, the readable memory medium comprising:

a code for producing residual error frames at a second lower resolution by performing an inverse discrete transformation on a pixel block of a know size and sampling the signal at a predetermined rate to obtain a second resolution lower than said first resolution:

a code for producing motion compensated frames at the second lower resolution; a code for combining the residual error frames with the motion compensated frames to produce video frames; and

a code for up-scaling the video frames to the first resolution, wherein the upscaling is performed by a technique of repeating pixel values.

11. (Currently amended) An apparatus for decoding a video bitstream at a first resolution, comprising:

means for producing residual error frames at a second lower resolution by performing an inverse discrete transformation on a pixel block of a known size and sampling the signal at a predetermined rate to obtain a second resolution lower than said first resolution;

means for producing motion compensated frames at the second lower resolution;
means for combining the residual error frames with the motion compensated
frames to produce video frames; and

means for up-scaling the video frames to the first resolution, wherein the upscaling is performed by a technique of repeating pixel values. Amendment After Final Rejection Serial No. 09/912,132 US010341

12. (Currently amended) An apparatus for decoding a video bitstream at a first resolution, comprising:

a first path for producing residual error frames at a second lower resolution by performing an inverse discrete transformation on a pixel block of a known size and sampling the signal at a predetermined rate to obtain a second resolution lower than said first resolution;

a second path for producing motion compensated frames at the second lower resolution;

an adder for combining the residual error frames with the motion compensated frames to produce video frames; and

an up-scaler increasing the video frames from the second resolution to the first resolution, wherein the up-scaling is performed by a technique of repeating pixel values.

13. (Cancelled)